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THE EFFECT OF MIGRATION ON THE EDUCATIONAL COMPOSITION OF WISCONSIN'S POPULATION

by

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SUMMARY

This study looks at the effect of migration on the educational composition of Wisconsin's population. Wisconsin government officials have claimed that the state's population has a substandard rank in educational attainment due to the out-migration of college graduates. They have termed the situation a Wisconsin "brain drain." Using the Census Bureau's Public Use Sample files, and the County-to-County Migration file, this report seeks to determine, based upon observations in the literature and data for all states, the impact of interstate migration on the educational composition of Wisconsin's population.

The analysis indicates that, in Wisconsin, during the 1975 to 1980 period, the propensity to migrate by educational attainment, and educational differentials among different classes of migrants are similar to patterns observed in past and contemporary regional and national level data. Specifically, between 1975 and 1980, the state's net loss of 15,249 college graduates aged 25 and above, due to interstate migration, was 4.5 times higher than the expected loss had there been no differential selection. In this five year period, Wisconsin lost 3.7 percent of its college graduate population due to interstate migration. Wisconsin follows an educational selectivity pattern which parallels most northern states - negative net migration among the total population with greater losses among college graduates. In this sense, the net loss of college graduates in Wisconsin is a symptomatic indicator of an interregional shift of population out of the North and to the South and West. Wisconsin does, however, retain its college educated population relatively well. The state's out-migration rate of college graduates ranks among the lowest third of all states. The net loss of college graduates is due primarily to Wisconsin's relatively low level of in-migration.

INTRODUCTION

The State of Wisconsin has made a substantial investment in education. With thirteen four-year campuses and thirteen two-year centers, Wisconsin has one of the most extensive higher education systems in the nation. The state ranks ninth in total government expenditures toward higher education (U.S. Bureau of the Census, 1984a). Wisconsin's highly educated labor force is often cited by state officials promoting economic development (Wisconsin Strategic Development Commission, 1984). An examination of statistical data from the 1980 census reveals that Wisconsin's population is not exceptionally educated. For instance, Wisconsin ranks only 30th of 50 states in the percentage of adults with a college degree. While 16.2 percent of persons in the United States over the age of 25 are college graduates, only 14.8 percent of persons this age in Wisconsin are college educated.

The leading explanation for the state's substandard level of education is the detrimental impact of net out-migration. Hartley Jackson (1984), of the Wisconsin Department of Industry, Labor, and Human Relations, was the first to report that Wisconsin lost 23,000 more college graduates than it gained through interstate migration between 1975 and 1980.[1] He interpreted this net loss as evidence of a Wisconsin "brain drain."

State officials and others who have assessed this information are concerned about the consequences of the net out-migration of the highly educated. One state report claimed the net loss of college graduates represents a major loss of Wisconsin's capital investment in human resources (Cibarich, 1984). Another report implied that Wisconsin should attempt to retain its college graduates; otherwise a significant drop in the base of

college graduates could cause the state to lose its competitive edge in drawing "high tech" industry (Wisconsin State Journal, 1984). According to Jackson (1984), Wisconsin is training white collar workers for a blue collar state. He suggests the state consider reallocating funds from higher education to vocational education. The "brain drain" has even emerged as a potential campaign issue. A 1986 Wisconsin gubernatorial candidate claimed the incumbent administration failed to deal with the departure of college graduates from the state (The Milwaukee Journal, 1985).

Given the limited amount of information which has triggered the above remarks, it is apparent that there is a need for a more thorough analysis of Wisconsin migration patterns by educational attainment. The objective of this study is to answer the following questions:

1. Do college graduates have a higher propensity to migrate from Wisconsin than persons with less education?

2. Are Wisconsin out-migrants more educated than Wisconsin nonmigrants and are in-migrants as educated as the out-migrants they replace?

3. What is the impact of migration on the educational composition of Wisconsin's population?

4. Is the selective propensity and impact of migration on education in Wisconsin widely divergent from migration patterns of other areas, such as the United States as a whole, census regions, and states?

5. Is the net loss of college graduates in Wisconsin a recent occurrence?

6. In what counties of the state does selective migration have the greatest impact on the educational level of the resident population?

This report will compare past research findings on selective migration with current empirical observations of Wisconsin's migration patterns. Data from other states and census regions will also serve as a contemporary gauge of Wisconsin's migration patterns. Data for all states will also show if Wisconsin's migration patterns are anomalous, or if they fit into an

interregional pattern. In this sense, this report serves to update previous studies on interregional selective migration. This study is unique in that most research has used either Standard Metropolitan Statistical Areas (SMSAs), regions, or metropolitan/nonmetropolitan classifications to examine selective migration. This study incorporates both state and county level data. The review of the literature and the empirical analysis will focus on three areas: (1) the propensity to migrate, (2) migration differentials, and (3) the impact of migration.

REVIEW OF THE LITERATURE

There is a vast amount of literature on educational selection in migration. Shryock and Nam (1965) identified three types of research on selectivity which will serve to guide both the review of the literature and presentation of results in this study. The objectives, slightly modified, are as follows:

1. to assess the likelihood of one educational group to migrate relative to another.
2. to gauge the difference in the educational attainment of nonmigrants and various classes of migrants.
3. to understand the impact of migration on the educational composition of an area.

Before reviewing the results of previous studies, a caution regarding the problems in generalizing about selective migration research findings is in order. Bogue (1959) warns that universal patterns of migration selectivity are unlikely to occur due to the dynamic nature of migration. Elaborating on this point, Long (1973) notes that dominant patterns of migration (such as immigrant wave migration in the late 19th and early 20th centuries, to interurban migration in the late 20th century) change, as do the variables on which selection is based, such as education. For instance, in 1940, 5.9 percent of persons aged 25 to 29 had college degrees. By 1980, 22.1 percent had degrees (U.S. Bureau of the Census, 1943, 1983). Hence, generalizations on selective migration are best tempered with an appreciation for ways in which temporal change influences the relationship between education and migration.

The Propensity to Migrate

Do highly educated persons have a higher probability of migrating than less educated persons? Most studies on the propensity to migrate measure the relative proportion of movers within each educational category. Although the relation varies, the most prevalent pattern was concisely stated by Suval and Hamilton in their analysis of U.S. Census data for the 1955 to 1960 period, "As level of education increases, the percentage of the population which is migrant increases..." (1965:539).

The second most common pattern occurs when both low and high extremes of the educational distribution have a higher propensity to migrate than persons in the middle of the educational distribution. This association has been called a "J" or "U" shaped relation (Long, 1973).

Other less common relations, such as the lowest educational group recording the highest propensity to migrate, have been observed. These relations were more common before the mid 1900s, when educational attainment was not as high as it is today (Zodgekar and Seetharam, 1972).

The relation between education and the propensity to migrate has been found to be conditional on the distance of migration. Long (1973) found a "U" shaped relation predominated when all migration distance classes were considered together. When only short distance, intracounty moves were examined, however, the less educated were found to dominate a negative relationship between migration and education. Conversely, when only interstate migrants were examined, the relation between migration and education was found to be generally positive and direct. Long concluded that education best predicts migration when only interstate moves are considered. Long (1973) also found that educational selectivity diminishes with age. In other words, education loses its power to predict migration as age increases.

Is the propensity of college graduates to migrate increasing or decreasing? That is, given that the propensity of all educational groups to migrate may be changing, has the relative selection of college graduates compared to all other educational groups increased?

Selective migration patterns by education began to diverge between the periods 1955 to 1960 and 1965 to 1970 when the proportion of persons making an interstate move declined for all educational categories except college graduates (Long, 1973).[2] However, selectivity diminished from 1965 to 1970 and 1975 to 1980. Between these two periods, the percent of persons making an interstate move declined for all educational categories, although the greatest decline was among college graduates (Long 1985). In an examination of migration between metropolitan and nonmetropolitan areas, Lichter et al (1979) found that educational selectivity declined between 1955 and 1975. The decline in migration was concentrated among young highly educated persons. Wilson (1983) found that interstate in-migration rates between the 1965 to 1976 and 1970 to 1976 period declined for the baby boom cohort and that the decline affected college graduates the most. Kennedy and DeJong (1985) reached similar conclusions with data from 1970 through 1983. Recent evidence, therefore, suggests both that the propensity to migrate across all educational groups has declined and that the difference between educational groups in the percent migrating has narrowed.

Determinants of the Propensity to Migrate

Several variables have explained a considerable amount of the variation in differential migration, including age, sex, education, and occupation (Ritchey, 1976; Shaw, 1975). Education has been consistently one of the most

powerful explanatory variables in describing variation in migration (Kennedy and DeJong, 1985; Long 1977; Ladinsky, 1967a). In this section, explanations in the literature of the variable propensity to migrate by educational attainment, particularly among the highly educated, will be reviewed. The role of a college education, the labor market, the nature of occupational specialization, government policy, and the changing size of the pool of college graduates will be discussed.

Colleges and universities play a significant role in influencing migration. For example, many persons attending college move short or long distances from their home communities. They may, therefore, be less tied to their former places of residence than persons who did not leave the community to attend college. Furthermore, higher education trains persons to efficiently obtain, process, and analyze information. It has been shown that college graduates have better access and ability to analyze information regarding employment opportunities (Suval and Hamilton, 1965; Grubel and Scott, 1977). In addition, from a supply perspective, universities are primary producers of specialists. Universities, and the types of specialists they produce, are not, however, distributed evenly across the country. In an analysis of PhDs, Harmon (1971) found that states vary considerably in their status as either net "producers" (number of degrees a state's universities confer) or "consumers" (number of graduates a state receives through net in-migration) of the highly educated. Although Harmon (1971) found a correlation between areas which produce a high number of graduates and local employment of the highly educated, most states cannot absorb all the specialists their universities produce. Lansing and Mueller (1977) thus see the flow of college graduates as a necessary process to reach equilibrium

between supply and demand for each specialty. They conclude that college graduates must search for employment in a national, as opposed to a local, labor market.

Ladinsky (1967b) found that the highly educated in high status professions have a greater tendency to migrate due to their highly marketable skills, blunted advancement within an organization, and active nationwide occupational contacts where news of job opportunities travels quickly.

Long (1973) has shown that persons at both educational extremes have a higher number of job transitions than persons in the middle educational levels. He also found a close correspondence between the percent of persons changing jobs and the percent changing residence (Long and Hansen, 1979). He reasons that the educationally disadvantaged change jobs frequently because they have both unstable work and unstable income. He speculates that highly educated persons migrate for entirely different reasons; they have both a wider range of employment opportunities and the income and other resources to support such changes. In addition, college educated persons have been found to receive a larger absolute wage gain through migration than less educated migrants (Grubel and Scott, 1977; McInnis, 1971).

From the demand side, prospective employers looking for highly specialized workers often cannot train workers themselves, or find qualified personnel in the local area. They must search nationally. Furthermore, highly educated persons have been found to be very sensitive to demand in industries where persons cannot be quickly trained (Grubel and Scott, 1977). In locations where there is not a high demand, Adams (1968) observed that human capital flows out of areas low in productivity to areas high in productivity.

Harbison (1973) speculates that a certain degree of out-migration among high status populations is due to poor government policy decisions, which can result in: (1) lack of receptivity to change in home state, (2) lack of realistic manpower or disproportionate mix of human and physical capital, (3) a technology gap, or (4) a failure to identify and support the most talented persons.

On the other hand, certain factors are beyond government control. For instance, it has been shown that cultural and natural amenities, such as climate, are playing an increasingly larger role both in the decision to move and in the choice of destination (Long and Hansen, 1979).

Although certain areas of the country demand a large number of college graduates, the supply of graduates in the 1980s transcends mismatches between skills and places. That is, there is an oversupply of college graduates in relation to the existing or expected demand for their skills (O'Neill and Sepielli, 1985; Harbison, 1973). Brown (1979) reports that, nationally, employment of college graduates grew by 76 percent between 1968 and 1978. However, professional and managerial occupations, which traditionally employ college graduates, rose by only 50 percent in the same period. Hence, the proportion of college graduates in these occupations declined.

As a result of this oversupply, college graduates increasingly face underemployment. "Because of the inability to obtain the generally most preferred jobs, in March 1978, 1 out of 4 employed college graduates held a job traditionally filled by someone with less schooling" (Brown, 1979:58). One might speculate that underemployed college graduates would seek better opportunities elsewhere, forcing gross migration rates up. In reality, migration rates among young college educated persons actually declined.

Wilson (1983) believes that the decline in migration is due to a condition of surplus labor which has put migrants at a disadvantage. Employers have less incentive to search nationally and distance hinders information about job opportunities.

Long (1973) speculates that the decline in the propensity of college graduates to migrate may be due to the increasing number of state universities. This has allowed employers to search a smaller area for a college educated workforce. In addition, the college educated population no longer represents a "select" (or small) proportion of the total population.

Despite the decrease in migration rates, it should be emphasized that better educated persons still have a higher propensity to migrate than those with less education.

Migration Educational Differentials

While a major objective of many migration selectivity studies is to assess the relative educational levels of nonmigrants and different classes of migrants, the populations on which the differentials are based differ considerably across studies (Zodgekar and Seetharam, 1972). For instance, differentials may compare the educational distribution of migrants versus nonmigrants at origin (origin differentials), or the same population of migrants relative to nonmigrants at destination (destination differentials). In-migrants can be compared to out-migrants (exchange differentials) and, finally, different streams of migrants, such as North to South region versus West to South region, can be compared.

Findings in the literature suggest that out-migrants generally tend to be better educated than nonmigrants at origin. The attainment of in-migrants is more variable, but is also generally higher than nonmovers at destination (Shryock and Nam, 1965; Zodgekar and Seetharam, 1972). Shryock and Nam (1965) ranked the educational attainment of migrants in interregional streams. They found that migrants from the Northeast region tend to be the most educated, followed by migrants from the North Central, West, and South regions. Wilson (1986) found educational exchange differentials among migrants in interregional streams from 1935 to 1940, 1960 to 1965, and 1975 to 1980 to be very similar. Morrison and Wheeler (1976) compared both destination and exchange differentials. They found that in-migrants to rural areas were younger and better educated than the resident population they joined. Relative to out-migrants, however, in-migrants were older and less educated.

Distance and age have been found to affect migration differentials. Suval and Hamilton found that, as the distance of migration increases (from same state, to contiguous state, to noncontiguous state), the educational level of migrants increases. However, even intrastate movers were found to be better educated than nonmovers. Shryock and Nam (1965) found that, as age increases, the difference in the educational attainment of migrants and nonmigrants diminishes.

The Impact Of Migration

Even if the percent distributions among educational levels of in- and out-migrants were identical, there could be substantial increase or decrease in the educational attainment of an area. This would occur particularly if there was a sizable net in- or out-migration (Suval and Hamilton, 1965).

Hence, to assess the impact of migration on the educational attainment of an area it is critical to relate migrants to the resident population.

The change in an area's educational percent distribution after five years of migration tends to be small. Shryock and Nam (1965) compared the educational percent distribution at the end of a five-year migration interval with the estimated percent distribution at the beginning of the interval. They concluded that the observed medians were "surprisingly similar" to the hypothetical medians. Medians, however, are insensitive in measuring the very groups migration is selective of - persons of very high and very low educational attainment. Wilson (1985) reports that the change which interregional migration imposed on the percent of persons who have completed one or more years of college changed by no more than a percentage point at the end of each of three recent five-year migration intervals. Because of the close correspondence between in- and out-migrants, Wilson concluded that the impact tends to be minimized if the net gain or loss is not large. It should be noted that, although the objective indicators may indicate that the two streams are roughly equivalent, there may be large qualitative differences in the education of in- and out-migrant exchanges which census data fail to capture. Furthermore, other objective indicators (such as occupation and income), which are beyond the scope of this research, may substantially differentiate migrants.

While there is little change in the educational percent distribution of an area due to migration, the percent change within each educational category due to migration can be substantial. Hamilton (1959) and Frey (1979) have hypothesized on ways in which the impact of migration on population composition varies across areas. They have observed that, because migration

is selective of the highly educated, areas which suffer from net out-migration will likely sustain disproportionate losses of their highly educated population, whereas areas which experience net in-migration will face disproportionate gains in their highly educated population. Frey (1979) termed this process the "circulation of elites" model to describe interregional population redistribution between southern and northern SMSAs (Standard Metropolitan Statistical Areas). He found that, during the 1955 to 1960 and 1965 to 1970 periods, SMSAs in the South and West regions, which are primarily net in-migration areas, gained disproportionate numbers of college graduate migrants (Atlanta and Dallas each had over an 18 percent gain in their college graduate populations in the 1965 to 1970 period due to net migration). Northeast and North Central SMSAs, which are primarily low net in-migration or net out-migration areas, did not sustain the hypothesized losses, but generally were able to maintain their college graduate populations by receiving in-migrants from nonmetropolitan areas.

Unlike Frey, Wilson (1983) found that northern SMSAs were not able to maintain their educational level between the 1965 to 1976 and 1970 to 1976 periods. He found that in-migration rates in the Frostbelt (Northeast and North Central census regions) declined by 9 percent. The decline in rates were particularly high among young 20 to 29 year olds, across all grade levels. In the Sunbelt (South and West census regions), declines in the in-migration rate were only prevalent among the young highly educated. Most other in-migration rates by age and education in the Sunbelt increased substantially. Wilson (1983:493) notes, "Whether or not these regional differentials are self reinforcing and will lead to further erosion in the educational and age composition of the populations in the Frostbelt remains to be seen."

The Selective Impact of Migration

Although educational specific net rates (per 100) measure the percent change due to migration, they do not measure how much of the change was due to differential selection across the grade levels. To gauge selection using rates one can compute the difference between the educational specific rate and the rate of the total migrant population. This method does not standardize for the size of the total rate, thus areas which have total rates of different sizes cannot be directly compared. Johnson (1955) solves this problem by dividing the difference of the educational specific rate and the total migration rate by absolute total migration rate. He terms this measure the "selection index." When the result is multiplied by 100, the selection index measures the percent increase or decrease within each educational category due to differential selection, apart from the change that would have occurred had there been no selection (had all educational categories had the same migration rate as the total migrant population).

In the 1935 to 1940 period, Johnson found that the male college graduate population, aged 25 to 34, decreased in the Northeast and North Central regions by about an additional 200 percent relative to what would have occurred had there been no selective migration. Conversely, the Southern region increased its college graduate population by almost 600 percent relative to what would have occurred had there been no selective migration. From as early as the late 1930s then, the South has been receiving a disproportionate number of high status migrants and the North has been suffering disproportionate losses of their best educated persons due to net out-migration.

Consequences of Migration and Educational Selection

Perhaps the most noted contemporary impact of interstate migration is the regional shift in population growth from northern states, with aging industrial infrastructures, to newer southern and western states. Northern states, which suffer from net out-migration, account for much of the net in-migration experienced by southern and western states. Frey (1979) and Wilson (1985) have shown that the composition of migration streams may have greater consequences on the origin and destination populations than the number of migrants.

Most of the recent literature on the consequences of educational selectivity focus on the highly educated. The highly educated have been recognized as speeding the rate of technical progress through "discovery and diffusion of innovations" (O'Neill and Sepielli, 1985:37). Where there is a concentration of highly skilled persons and relatively high business formation certain reinforcing growth effects may take place. For instance, one of the primary factors in an area's ability to attract new and high technology industry is the presence of a large pool of technical and scientific labor (Castells, 1985:13). As Wilson (1985) states, net in-migration to an area will increase the pool of persons with innovative potential, thus facilitating the formation of new industry and the growth of existing ones.

Declines in innovation, industrial formation, and the tax base can potentially occur in those areas that suffer from net out-migration. Frey (1979:220) notes, "If the out-movement from these older metropolitan areas is selective of their most skilled and highly educated residents, their residual populations will be economically disadvantaged in comparison to the growing 'sunbelt' SMSAs." In a worst case scenario, Adams (1968) believes that, once

an area falls below a certain level of human capital necessary for economic development (which he does not gauge), the growth potential of all combined resources in the economy is jeopardized. Losses of certain skills could trigger cumulative external effects. In the United States this scenario seems unlikely. Rather than a shortage, the nation faces an oversupply of college graduates (although it is granted that within certain specialties and in some localized areas there may be shortages). Raymond (1973) found that, in the case of Appalachia and other areas where the educational system produces more college graduates than can be employed, out-migration may not seriously retard economic development.

DATA AND METHODS

Data Sources

Data on Wisconsin for the 1975 to 1980 migration period are from the 1980 Census of Population's "County-to-County Migration Flows" tape file (U.S. Bureau of the Census 1984b). Data from this file are presented for Wisconsin nonmovers, intracounty movers, and intercounty movers.

Interstate migration data for all states, covering the period from 1975 to 1980, were obtained from the census report entitled "Geographic Mobility for States and the Nation" (U.S. Bureau of the Census, 1985). Data on the 1980 resident population for all states were derived from the report "Social and Economic Characteristics of the Population" (U.S. Bureau of the Census 1984c). Interstate migration and nonmover data for the 1965 to 1970 period were obtained from the 1970 Public Use Sample, 15 percent, 1 in 1000, tape file.

Data Limitations

This report presents data for persons 25 years and older. Those under the age of 25 are typically not included in educational attainment studies because many have not completed their education. The exclusion of 18 to 24 year olds also eliminates a large proportion of moves that were made to attend college.

In this study, in-migrants from abroad are excluded from analysis because the parallel group, out-migrants to areas abroad, were not enumerated in the 1980 Census. In this way symmetry between in- and out-migrants is maintained.

The Census does not measure educational degree attainment, but rather years of school completed. Typically, reports on educational attainment which use census data classify persons who completed four years of college as college graduates. Under this criterion, college graduates who took less than four years to graduate (and did not complete additional years of schooling) would not be counted as college graduates. Likewise, those who completed four years of college but never graduated would be misclassified as college graduates. Despite these drawbacks, this study defines college graduates as persons who have completed four years of college.

Migration, as measured in the decennial censuses, only enumerates the last move in the five-year period preceding the census. Multiple moves are not identified. DaVanzo (1980) estimates that the migration question misses approximately one third of annually measured moves of people who are observed over a five-year period. However, she also estimates that half of these undetected moves are self-cancelling initial and return moves.

RESULTS

The Propensity to Migrate

Are college educated persons more or less likely to migrate out of Wisconsin than less educated persons? In this section, analysis will focus on the propensity to migrate by educational attainment for Wisconsin's population. In order to examine the effect of distance on migration, the following types of moves will be considered: intracounty, intrastate, interstate-contiguous and interstate-noncontiguous.

To put in perspective migration patterns among persons with different levels of education, it is appropriate to first examine migration patterns for the population as a whole. Among all persons aged 25 and older in Wisconsin, 40 percent moved between 1975 and 1980 (Table 1). The majority of moves were short distance. Among those who moved, 60 percent moved within their county, another 23 percent moved across a county line but within the state, and the remaining 27 percent moved out of Wisconsin.

Migration patterns are quite variable when education is considered. For the total population 25 years and older, mobility steadily increases with years of school completed. Figure 1 shows that only 24 percent of Wisconsin's population with an elementary school education moved between 1975 and 1980. The proportion of persons who migrated by each educational level steadily rose to peak at 56 percent for college graduates. Data on Wisconsin are in concordance with Suval and Hamilton's (1965) observation that migration increases with education. The proportion of college graduates who were interstate out-migrants was the same for both Wisconsin and the United States during this period.

Suval and Hamilton (1965) found that highly educated migrants are more likely to choose long distance destinations, unlike less educated persons who tend to make shorter distance moves. The data for Wisconsin confirm this. For instance, only 10 percent of migrants with an elementary school education chose an interstate destination. In contrast, 30 percent of migrants with a college education made an interstate move. The higher propensity of college educated persons to migrate may be due to the fact that education is actually measuring the effects of age. Migration has a strong negative relation with age and the college educated are disproportionately represented by younger persons. Controlling for age should reveal if the relationship between education and migration is spurious.

In Wisconsin, as in the United States, mobility declines with age. For example, almost three quarters of the population aged 25 to 34 years moved between 1975 and 1980 (Table 1). Conversely, less than one quarter of those aged 45 and older moved during this period. The introduction of age as a controlling variable heightens differences in migration between persons of different educational levels at young ages and forces these differences to converge at the older ages. For instance, among 25 to 34 year olds, 57 percent of persons with an elementary education, versus 84 percent of persons with college degrees, migrated. This relatively wide 57 to 87 percent difference in the propensity to migrate narrows to a 23.0 to 23.7 percent differential at the oldest age group, 65 and over. Education is therefore a powerful predictor of migration at the younger ages, but loses its ability to explain migration at the older ages. Long observed this tendency in national level data (1973).

Migration Educational Differentials

The previous section established that the high migration propensity of Wisconsin college graduates is consistent with national and regional observations in the literature. It is logical to ask if Wisconsin out-migrants are more educated than nonmovers and if in-migrants are as educated as the out-migrants they replace.

Origin Differentials. Table 2 shows that, in the 1975 to 1980 period, Wisconsin migrants were considerably better educated than Wisconsin nonmigrants. For example, 11 percent of all Wisconsin nonmovers are college graduates, but 23 percent of all Wisconsin migrants (including interstate in-migrants) are college graduates. Furthermore, as a group, migrants who move to distant locations are generally better educated than migrants who do not move as far. For instance, the percent of college graduates steadily rises from 15 percent among intracounty movers to 41 percent for out-migrants to contiguous states (Figure 2). These empirical observations on Wisconsin education differentials are consistent with observations in the literature (Zodgekar and Seetharam, 1972; Shryock and Nam, 1965), with one exception. Wisconsin out-migrants to contiguous states have higher educational attainment than out-migrants to noncontiguous states. Observations in the literature have been the opposite (Suval and Hamilton, 1965).

Exchange Differentials. A comparison of the educational levels of migration streams can also reveal if in-migrants to Wisconsin are as educated as out-migrants from Wisconsin. This examination shows that the educational attainment of in-migrants to Wisconsin from noncontiguous states was marginally higher relative to the attainment of Wisconsin out-migrants to noncontiguous states (Table 2). However, the educational attainment of

in-migrants to Wisconsin from contiguous states was substantially lower relative to the attainment of Wisconsin out-migrants to contiguous states. The impact of this exchange will be assessed in the next section.

The effect of age is similar to that measured in the propensity to migrate analysis. At older age groups, the difference between the educational attainment of the population in various migration streams declines (Table 2).

The Impact of Migration On Wisconsin

The previous sections established which educational groups migrate and the difference in the educational attainment of migrants. The next logical step is to ascertain the impact of migration on Wisconsin. The overall impact of migration on Wisconsin's population was modest. Between 1975 and 1980, 163,600 persons 25 years and older entered the state and 185,817 others left the state. This resulted in a net loss of 22,217 persons aged 25 and older (Table 3).

To put the impact of migration into perspective, a migration rate which relates the number of migrants to the estimated population of the state before migration can be constructed.[3] An analysis of rates reveals that the state's population grew by 6.0 percent due to in-migration and declined by 6.8 percent due to out-migration. This resulted in an overall loss of 0.8 percent of the state's population aged 25 and older due to net migration between 1975 and 1980.

The impact of migration is not as moderate when education is considered. Both numeric and rate statistics indicate a direct relation between education and the levels of in-, out-, and net migration. For example, Table 3 shows that Wisconsin lost the greatest number of persons at the highest educational

category. Conversely, the state actually gained a small number of persons at the lowest educational categories (persons with 0 to 8 years of elementary school and 1 to 3 years of high school). The migration rates display a parallel pattern. With each higher grade level, the net loss becomes increasingly negative. The state lost 3.7 percent of its college graduate population, aged 25 and older, due to net migration between 1975 and 1980. Wisconsin thus decreased its educational quality in two ways. First, the state gained a modest proportion of the lowest educated population and, second, the state lost a larger proportion of its highly educated population. It should be stressed that when these figures are related to the state's total population, the loss was minimal.

There is also a high degree of variation on the impact of migration by age level. The largest net loss by age is concentrated among 25 to 34 year olds. The out-migration rate indicates that over one quarter (26.1 percent) of the college graduates aged 25 to 34 who lived in Wisconsin in 1975 left by 1980. An analyst might be tempted to term the large percentage loss a "brain drain" but Wisconsin is not unique in this regard. For the United States as a whole, the out-migration rate of college graduates aged 25 to 34 was only slightly less (25.3). Furthermore, it should be recognized that Wisconsin had a 20 percent increase in its college graduate population aged 25 to 34 due to in-migration. Therefore, at the age group where the highest volume of migration occurred, the state suffered a net loss of 6.2 percent of its college graduates, aged 25 to 34, due to net migration between 1975 and 1980.

An analysis of migration rates reveals that, relative to the total population, younger persons display a different propensity to migrate by education. Rather than a linear relation between education and migration, an

examination of the Wisconsin in-, out- and net migration rates shows a "J" shaped relation for the age groups 25 to 34 years and 35 to 44 years. Long (1973) observed this relation in interstate migration data for the United States as a whole.

Rates are effective in determining the percent change within each educational category, due to migration. Another measurement technique is needed to assess the total change in educational composition of the resident population. By comparing the educational distribution of the 1975 estimated Wisconsin population with the 1980 distribution one can see that migration had a small impact on educational composition. The independent effect of interstate migration between 1975 and 1980 (ignoring all other factors) caused the proportion of college graduates in Wisconsin to decline from 15.1 percent in 1975 to 14.7 percent in 1980.[4] The median years of school completed declined from 12.49 in 1975 to 12.48 in 1980. If the median years of school completed by the estimated pre-migration 1975 Wisconsin population is compared with other states' 1980 median, the state would only move up three places in rank, from 30th to 27th (to tie with Oklahoma). Therefore, recent migration patterns alone cannot account for Wisconsin's below average rank in the proportion of college graduates. Shryock and Nam (1965) and Wilson (1985) also found very minor changes in the educational levels of resident populations due to the effects of five years of interstate migration.

The Impact of Migration: Wisconsin in a National System

The Number of Migrants. Compared to other states, Wisconsin ranked near the middle of the distribution in terms of the number of college graduates who either entered or left the state. For instance, between 1975 and 1980,

Wisconsin ranked 24th in the number of college graduate in-migrants and 19th in the number of out-migrants (Table 4).

Wisconsin ranks somewhat higher in the net loss of migrants. The state has the eighth highest net loss of college graduates, but still pales in comparison to the numeric loss and gains of some states. For instance, Wisconsin's net loss of 15,249 college graduates amounts to only nine percent of New York's loss of 164,529 graduates in the 1975 to 1980 period.

Migration Rates. Migration rates are an effective method of standardizing the impact of migration across states of different population sizes. Relative to other states, Wisconsin's 3.7 percent net loss of college graduates due to migration between 1975 and 1980 is the 14th highest loss (New York's net migration rate among college graduates was -8.2).

When states are organized into a Frostbelt group (Northeast and North Central region) and a Sunbelt group (South and West region), a definite pattern of interregional growth and decline emerges. For instance, 76 percent of Frostbelt states registered a net loss of college graduates. Conversely, 70 percent of states in the Sunbelt registered a net gain. The rate of loss of college graduates among net out-migration states in the North is not as large as the gain of graduates for net in-migration states in the South and West. For example, six states in the South and West had a gain of over 10 percent in their college graduate population due to net migration. In comparison, the six highest college graduate, net out-migration states in the North and East had rates that ranged from -5.4 to -8.6. Wisconsin's net loss of college graduates is representative of most other Frostbelt states. From a national perspective, the net migration rates of college graduates portray a broad shift in migration out of the North and towards the South and West.

Is the interregional pattern of migration that Frey (1979) termed the "circulation of elites" model present in the 1975 to 1980 period? Under this model, one would expect states which lost population due to net migration to suffer even greater losses among their college graduate population. Conversely, states which gained population through net in-migration would be expected to have disproportionate increases in their college graduate population. The "circulation of elites" hypothesis does describe the migration patterns of the Northeast and North Central regions fairly well. Sixteen of the 21 Frostbelt states registered a net out-migration rate among their total population and experienced larger losses among their college graduate population. For the Sunbelt states, the results are less consistent. Only 16 of the 29 states had both a total net gain from migration and disproportionate gains among their college graduate population. The generalization can be made that the Frostbelt states experience both net out-migration and disproportionate losses of their highly educated persons. The parallel statement, that Sunbelt states experience both net in-migration and disproportionate increases in their college graduate population cannot be applied to the 1975 to 1980 migration period.

Gross Migration Rates. An analysis of the gross in- and out-migration components of the net migration rate may help explain why some states are gaining population through migration while others are losing (Table 4). An analysis of out-migration rates for all states shows Wisconsin's rate to be among the more favorable - 15th lowest - contradicting the notion of a Wisconsin brain drain. Conversely, Wisconsin's in-migration rate ranks far worse - the 6th lowest. The data suggest that the state's net loss of college graduates is due, not to excessive out-migration, but rather primarily to its relatively poor ability to attract college educated in-migrants.

Nationally, a pattern can be found among states' in-migration rates, but not their out-migration rates. For instance, states in the the Northeast and North Central regions have low rates of in-migration among their college graduate population. With the exception of Maine, New Hampshire, and Vermont, none exceeds 20 percent. Conversely, southern and western states have a much higher level of in-migration among their college graduate populations; one third of the states had an in-migration rate that was near or above 30 percent. Therefore, in-migration rates, rather than out-migration rates, help explain why the North is losing population while the South and West are gaining.

Change in Selective Migration

Net Migration. An examination of migration data covering the earlier 1965 to 1970 period reveals that, while Wisconsin experienced a net loss of college graduates, the loss was not as large as in the 1975 to 1980 period (Table 5). The net loss of college graduates in Wisconsin increased by 218 percent between the two periods, from -4,800 in the 1965 to 1970 period to -15,249 in the 1975 to 1980 period. The negative net migration rate increased by over a percentage point from -2.1 to -3.7.

In the Frostbelt there was little change in the pattern of the net migration rate. About the same proportion of states experienced net out-migration during both periods. In the Sunbelt, however, there was a decline in the number of states which suffered a net loss due to migration, from fifteen in the 1965 to 1970 period, to eight in the 1975 to 1980 period. The sharp contrast in the 1975 to 1980 period between net out-migration Frostbelt states and net in-migration Sunbelt states was not as apparent in the 1965 to 1970 period.

The "circulation of elites" model fits the 1965 to 1970 period well, however, eleven of the Sunbelt states which followed the "circulation of elites" pattern were net out-migration states. In the 1965 to 1970 period, the "circulation of elites" hypothesis is not synonymous with net in-migration to the South.

Gross Migration. While the impact of net migration was lower among college graduates in Wisconsin during the 1965 to 1970 period, the level of in- and out-migration was actually higher at this time. The out-migration rate was over a percentage point higher in the 1965 to 1970 period relative to the 1975 to 1980 period and the in-migration rate was three percentage points higher. Despite the higher level of movement relative to the resident population, the net impact was less in the earlier period because the in- and out-migration rates were more similar to each other. The higher net out-migration rate in the 1975 to 1980 period is primarily due to the disproportionate drop in the in-migration rate relative to the out-migration rate.

An analysis of gross migration reveals that gross migration rates decreased in Wisconsin, but this occurrence is not uniform across all states. For instance, 81 percent of the states in the Frostbelt experienced a decrease in in-migration rates among college graduates, while only 45 percent of the Sunbelt states had a decrease. The decline in out-migration rates was more dominant; 48 states registered such a decline. The finding that gross migration has decreased in Wisconsin is consistent with Wilson's (1983) analysis of interstate migration.

Although rates of in- and out-migration have declined, the consequences of migration, as measured by net migration rates, have not declined in a similar fashion. In fact, from the 1965 to 1970 period to the 1975 to 1980 period,

there is a wider difference between the level of the net in-migration rates of the Sunbelt states and the net out-migration rates of the Frostbelt states.

The Selective Impact of Migration

The previous analysis gauged the impact of migration on Wisconsin's college graduate population relative to all other states. The analysis did not address how much of the gain or loss within each educational category was due to differential migration across grade levels. In this section, the analysis will seek to ascertain what effect selective migration has on the educational composition of Wisconsin's population relative to regions. The selection index (Johnson, 1955) will be used to measure the percent increase or decrease within each educational category due to differential selection, apart from the change that would have occurred had there been no selection (had all educational categories had the same migration rate as the total migrant population).[5]

To measure selection, the entire educational distribution will be analyzed. In order to reduce the amount of data presented, regions, as opposed to states, will be compared to Wisconsin. The previous analysis has shown that states generally follow the pattern of their regions. Of course, regional data will tend to moderate the variance which would be apparent with state level data.

For Wisconsin, the pattern of the selection index is generally similar to numeric and rate calculations. Lesser educated persons are "overselected" and highly educated people are "underselected." "Overselection" implies that a given class gained a larger number or lost a smaller number than would be expected if selection were absent (Johnson, 1955). For example, if the total

Wisconsin net migration rate of -0.8 for all persons 25 years and older was applied to all educational categories (which assumes no selection), there would have been a loss of 3,958 persons with 0 to 8 years of education (Table 6). In reality, there was a net gain in that category of 959 persons (Figure 3). Selection reversed a loss of persons with 0 to 8 years of schooling and replaced it with a gain. Selection increased the number of persons in Wisconsin with an elementary school education by 124 percent.

"Underselection" occurs when a given class gains a smaller number of persons or loses a greater number than would be expected if selection were absent (Johnson, 1955). For example, if the total net migration rate for persons 25 years and older (-0.8 percent) was applied to each educational category, there would have been a loss of 3,362 college graduates in Wisconsin. In fact, there was a net loss of 15,249. Selection therefore accelerated Wisconsin's loss of college graduates by 355 percent. The net loss of college graduates was over four times greater than the loss that would have occurred had there been no selection.

There is a striking difference in the net selection index of the Northeast and North Central regions compared to Wisconsin. Although the regions follow the same pattern as Wisconsin, the level for Wisconsin is much more extreme (Figure 4). Much of the difference in the net selection indexes can be explained by an examination of the net migration rates. Wisconsin had a total net out-migration rate considerably lower than the Northeast and North Central regions. However, Wisconsin's net out-migration rate for college graduates is only slightly lower than the rates for these regions. Relative to the Northeast and North Central regions, Wisconsin loses a greater proportion of its college graduate population to net migration than would be expected if there was no differential selection.

The previous analysis indicated that, compared to all states, Wisconsin has a relatively low-ranking out-migration rate among its college graduate population. Relative to Wisconsin's low total out-migration rate, however, the out-migration of college graduates is high. Conversely, the selection of college graduate in-migrants in Wisconsin is similar to the Northeastern and North Central regions.

Unlike the northern states, the South and West are increasing their educational quality by receiving fewer less educated persons than would be expected and more highly educated persons.

College Educated Migrants to and from Wisconsin Counties

It has been shown that the impact of migration on the educational composition of Wisconsin's population is similar to the impact on other states in the Frostbelt. How does the impact of migration vary within the state?

A spatial examination of the impact of interstate migration within Wisconsin reveals that a large proportion of the net loss of college graduates was concentrated in just a few areas. For instance, Dane county, home of the University of Wisconsin-Madison, suffered a net loss of 7,617 graduates due to interstate migration, while Milwaukee county, the state's largest metropolitan area, lost 4,739 college graduates (Table 7 and Figure 5). These two counties account for 67 percent of the total net loss of college graduates among all counties which registered a net loss of the highly educated. Eighty-eight percent of the loss is accounted for when the counties having University of Wisconsin System four-year campuses are aggregated.[6] It should be noted that 35 of Wisconsin's 72 counties experienced a modest net gain of college graduates.

The Production of College Graduates

There are factors other than migration which affect the supply of college graduates. Between April 1, 1975 and April 1, 1980 it is estimated that Wisconsin conferred 106,816 Bachelor degrees. During this same period, the state experienced a net loss of 20,611 college graduates of all ages due to migration.[7] While the state faced a net loss of college graduates due to migration, the number of college graduates "produced" far out-stripped the loss. The number of college graduates in Wisconsin is increasing; the net out-migration of college graduates is simply slowing the rate of increase.

CONCLUSION

This study has shown that Wisconsin migration patterns by education correspond to observations in the literature and, for the most part, compare favorably, in terms of the retention of educational capital, with North Central and Northeast states. The following is a summary, based upon the objectives listed in the introduction.

The Propensity to Migrate

Persons with a college education have a higher propensity to migrate out of Wisconsin than less educated persons. This finding is consistent with prior observations in the literature. Furthermore, in the 1975 to 1980 period, Wisconsin and the United States had virtually identical proportions of interstate out-migrants within each grade level.

Migration Differentials

Out-migrants from Wisconsin are significantly better educated than nonmigrants. Generally, the longer the distance of the migration stream from origin, the more educated the migrants. This finding is consistent with the literature. As an exchange differential, Wisconsin in-migrants have only slightly lower educational attainment than out-migrants.

The Impact of Migration

Due to selective interstate migration, the net loss of 15,249 college graduates in Wisconsin, between 1975 and 1980, was 4.5 times greater than the loss had there been no selection (if all educational groups had the same

propensity to migrate as the total population). The Northeast and North Central regions had a similar pattern of selection, but the selection of college graduates to migrate was far higher in Wisconsin.

Despite the high level of selection of college graduates, when the net loss of college graduates in Wisconsin is related to the total resident population, the impact is modest. Between 1975 and 1980, Wisconsin lost 3.7 percent of its college graduate population due to interstate net migration (the North Central region lost 4.4 percent). The percent of college graduates in Wisconsin declined from 15.1 to 14.7 percent due to net migration. Median years of school completed declined from 12.49 to 12.48.

An analysis of the gross components of migration shows that Wisconsin has one of the more favorable out-migration rates among all states - 15th lowest. However, the state has one of the least favorable in-migration rates - 6th lowest. Wisconsin's negative net migration rate is thus due more to the state's relatively poor ability to attract college graduate in-migrants than to excessive out-migration by the highly educated.

The net loss of college graduates due to migration is counterbalanced by two factors not directly associated with migration - the production of college graduates and the increase in the proportion of persons earning a college degree. The number of bachelor degrees granted in Wisconsin between 1975 and 1980 (106,816) exceeded the net loss of college graduates 18 years and older during the same period by over five times. Despite the loss of college graduates due to migration, Wisconsin is increasing its stock of educational capital.

Due to the close numerical equivalence of the number of in- and out-migrants and the similar composition of the two interstate cross-streams, it can be concluded that the impact of migration has only a modest effect on the supply of college graduates and the educational composition of Wisconsin's population.

The Impact of Interregional Population Shifts on Wisconsin

When data on Wisconsin college graduates are compared with other states, an interregional pattern of net out-migration in the North and net in-migration in the South and West is revealed. For the last two decades most northern net out-migration states have suffered a disproportionate loss among their highly educated population. Conversely, several southern net in-migration states have experienced disproportionate gains in their college educated population due to net in-migration. Although the net loss of the college educated in Wisconsin had a moderate impact on the state's supply of highly skilled labor, this interregional dichotomy of net migration rates suggests that the consequences of migration for Wisconsin are part of a broader, regional trend.

The negative consequences which can accrue to net out-migration/low growth areas are well documented. They include: personal income growth which lags behind other areas, slow occupational advancement among workers, and low levels of industrial formation, productivity, and innovation (Sternlieb and Hughes, 1975). The high net in-migration rates of college graduates in the South and West relative to the low in-migration rates of graduates in the North is a symptomatic indicator of the Sunbelt's higher level of industrial formation, employment growth, and innovation. The South and West have

captured the momentum of this growth. The northern states, which are experiencing modest net migration losses of their college educated populations, are collectively contributing to the more substantial growth of several Sunbelt states.

Future Directions of Educational Selectivity

All others factors being equal, the demand for college graduates will increase as the college graduates of the baby boom cohort are promoted from their entry-level positions and the pool of graduates decreases. Following Wilson's (1983) logic, one would expect that, as smaller groups of young cohorts enter a labor force with more favorable employment opportunities (arising from lower intra-cohort competition for entry-level positions), the migration rate of young college graduates will increase. If regional net migration imbalances continue, the consequences of migration will be more severe in an environment with a heavier level of gross migration.

The most striking feature of Wisconsin's educational selectivity is the unusually high college graduate net migration rate relative to the total net migration rate. Despite the high overselection of college graduates, the impact of migration was minor due to the small proportion of migrants relative to the total population. In the future, as migration rates of college graduates rise, the net loss of college graduates in Wisconsin could be substantially greater. Preliminary estimates of the 1980 to 1985 period indicate that Wisconsin's level of total net migration loss has risen (Kale and Voss, 1986).

As a hypothetical example, assume Wisconsin develops the same total rate of net migration loss as the North Central region in the 1975 to 1980 period

(-2.4). If the state's net selection index for college graduates remains constant (-355), the state would experience a net loss of over 11 percent of its college graduate population in a five-year period (Wisconsin's net loss of college graduates was -3.7 percent in the 1975 to 1980 period). Trends of this kind for the 1980s can only be estimated at this time. Detailed analysis must await the results of the 1990 Census. On a more positive note, it should be added that the estimated post-1980 increase in Wisconsin's net loss due to migration covered a period when the state's economy suffered a severe and prolonged recessionary blow. More recent estimates are showing a recovery from the 1981 to 1983 recession, both in terms of job creation and in declining total net loss due to migration (Kale and Voss, 1986).

NOTES

1. The figure of 23,000 was widely quoted as Wisconsin's net loss of college graduates between 1975 and 1980 due to migration. The statistic was based on a two and one half percent sample from a migrant extract from the Census Bureau's Public Use Microdata Sample, File A. The universe included all persons, regardless of age, who attended but did not necessarily complete four years of college. The figure also included in-migrants from abroad. A more precise figure of the net loss of college graduates in Wisconsin due to migration between 1975 to 1980, which is based on a 10 percent sample from the Bureau's County-to-County Migration Flows file and, as its universe, includes all persons 18 years old and over who have completed four years of college, less in-migrants from abroad, is -20,611.

2. Since the 1940 Decennial Census (with the exception of the 1950 Census) the Census Bureau has measured migration based on a question of where the respondent lived five years prior to Census day.

3. The rates in this paper should be interpreted as the percentage contribution to an area's population aged 25 and over relative to what would have occurred in the absence of migration (Frey, 1979). For any educational group in any given area the rate can be defined as:

   I = number of in-migrants
   O = number of out-migrants
   N = value of net migration (I-O)
   P = 1980 population
   R = The estimated population in 1975 (P - I + O)

   In-migration rate: I/R * 100
   Out-migration rate: -(O/R * 100)
   Net migration rate: N/R * 100

4. The 1975 estimate was derived from the educational distribution of the 1980 Wisconsin population, less 1975 to 1980 interstate in-migrants, plus out-migrants. The estimate does not take such factors as mortality or increases in the educational attainment of the population into account.

5. The selection index standardizes the size of rates and allows the degree of selection by each educational class to be compared across areas. The sign of the denominator is ignored so that the index will indicate "under" or "overselection."

   The formula for the selection index is:

   (Ed. Specific Rate - Total Rate)/(ABS. Total Rate) * 100

6. The 14 counties with University of Wisconsin System four-year campuses are: Brown, Dane, Douglas, Dunn, Eau Claire, Grant, Jefferson, Kenosha, La Crosse, Milwaukee, Pierce, Portage, Walworth, and Winnebago.

7. The 106,816 figure is based on the number of bachelor degrees conferred by institutions of higher education in Wisconsin. The conferral data was adjusted to better correspond to the April 1, 1975 to April 1, 1980 migration data. With the exception of averaging data for 1974 to 1975 and 1979 to 1980, the 1975 to 1980 total was aggregated from single calendar year data.

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Figure 1.

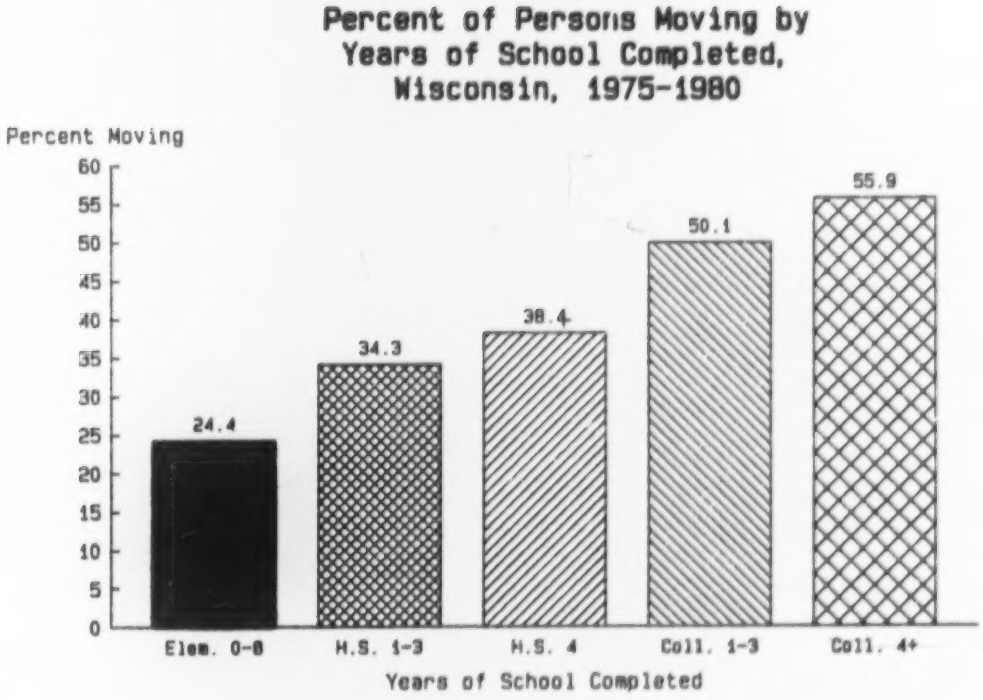
Percent of Persons Moving by
Years of School Completed,
Wisconsin, 1975-1980
Percent Moving
60
55
50
45
40
35
30
25
20
15
10
5
0
24.4
34.3
38.4
50.1
55.9
Elem. 0-8
H.S. 1-3
H.S. 4
Coll. 1-3
Coll. 4+
Years of School Completed

Figure 2.

Proportion of College Graduates for Each Type of Out-migration Stream, Wisconsin, 1975-1980.

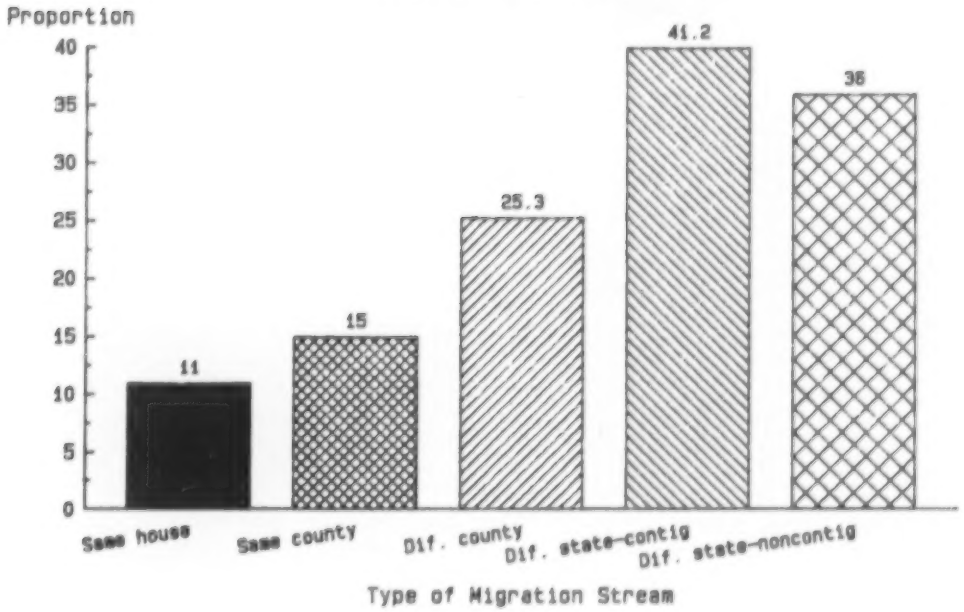

Figure 3.

Actual versus Theoretical Net Migration
by Years of School Completed,
Wisconsin, 1975-1980.

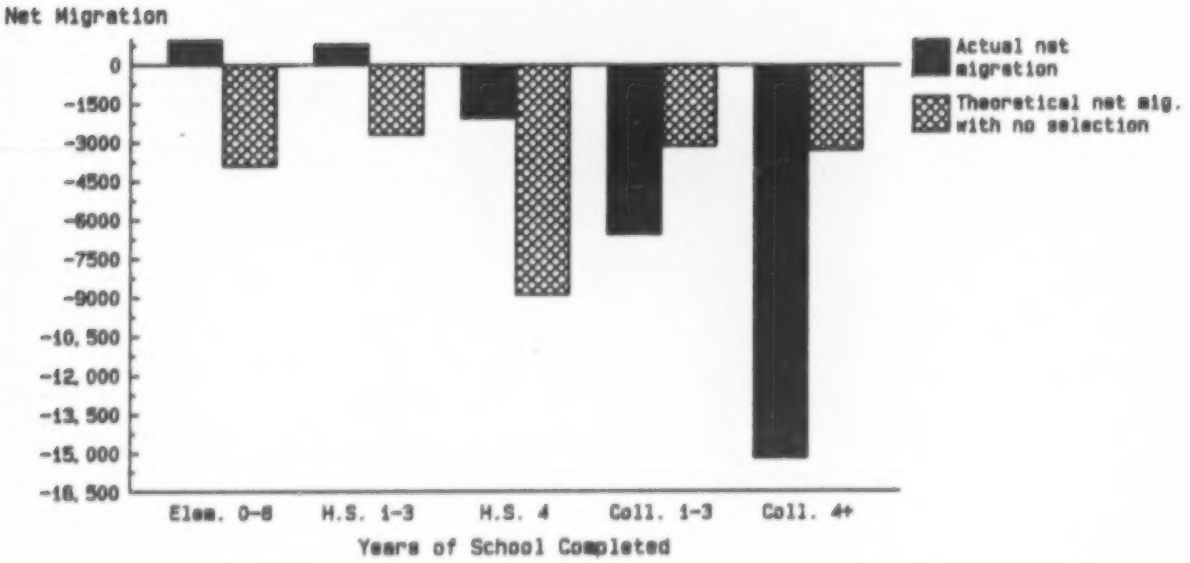

Figure 4.

The Percent Change in Each Educational Class
Due to Differential Net Selection,
Wisconsin versus the Midwest, 1975-1980.

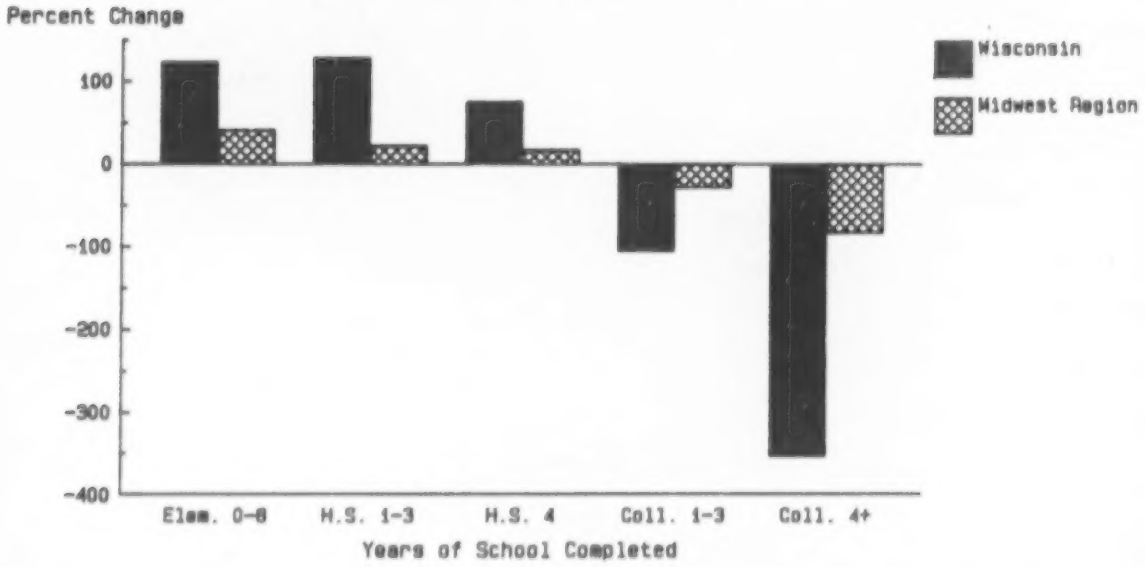

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Figure 5. Interstate Net Migration of College Graduates 25 Years Old and Over, Wisconsin, 1975-1980.

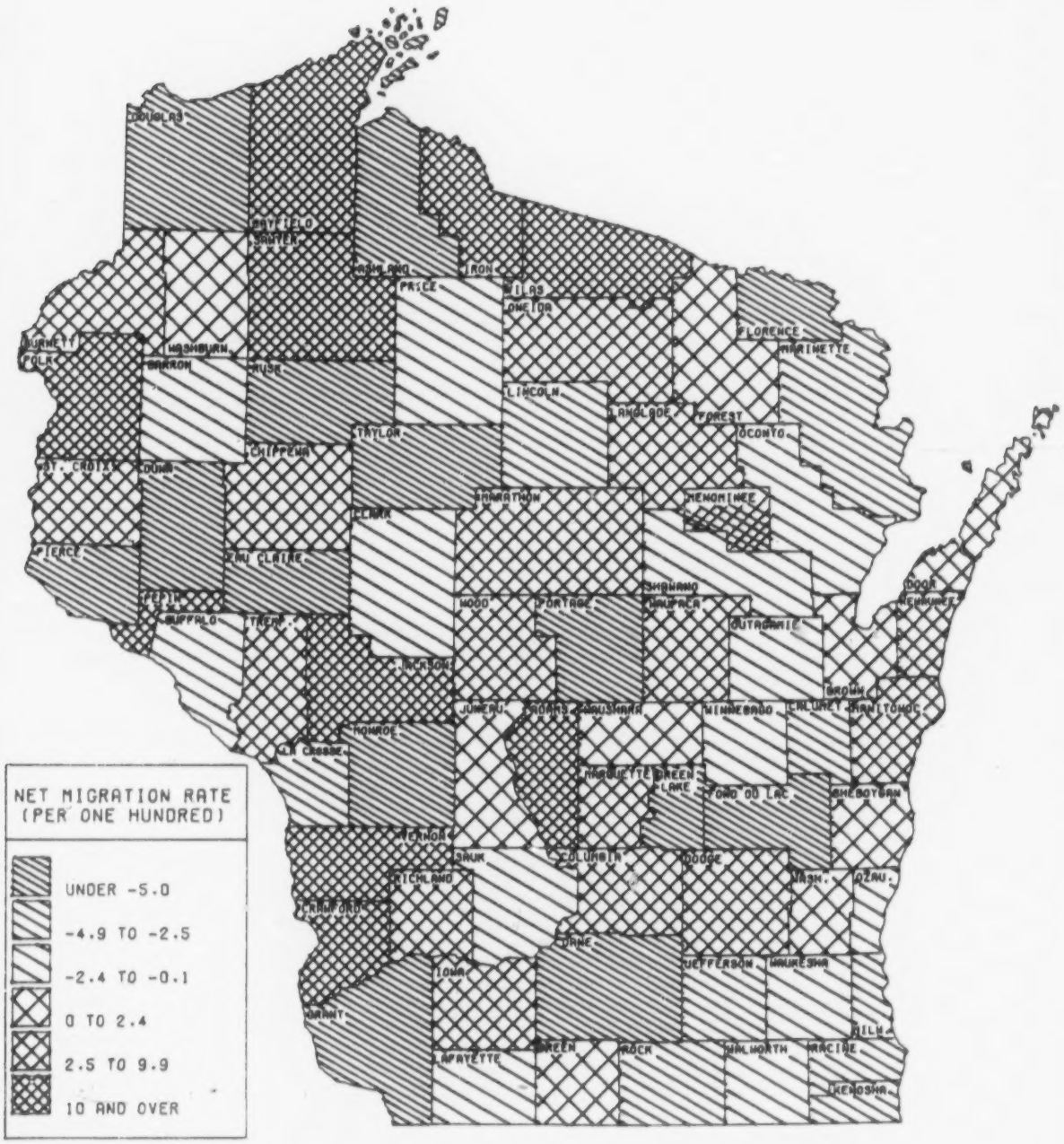

Table 1: Percent of Out-Migrants By Distance Class By Years of School Completed By Age: Wisconsin, 1975-1980.

Age and Years of School Completed	Same House	Different House				Percent Total	Numeric Total
		Same State		Different State			
		Same county	Different county	Contiguous	Non-contiguous		
Persons 25 years old and over..	60.3	23.7	9.2	2.1	4.7	100.0%	2,723,492
Elementary: 0 to 8 years.....	75.6	17.2	4.9	0.7	1.6	100.0%	487,022
High school: 1 to 3 years.....	65.7	23.5	6.8	1.1	2.8	100.0%	336,375
4 years.....	61.6	25.3	8.3	1.4	3.4	100.0%	1,097,379
College: 1 to 3 years.....	49.9	27.9	12.3	3.0	6.9	100.0%	391,471
4 or more years...	44.1	23.6	15.3	5.8	11.2	100.0%	411,245
Persons 25-34 years old.....	27.1	41.9	18.0	4.6	8.5	100.0%	750,136
Elementary: 0 to 8 years.....	42.7	38.8	11.2	2.0	5.3	100.0%	13,817
High school: 1 to 3 years.....	31.7	48.2	13.4	2.1	4.7	100.0%	54,865
4 years.....	33.3	45.5	14.4	2.2	4.7	100.0%	336,999
College: 1 to 3 years.....	23.8	42.7	19.6	4.9	9.0	100.0%	165,785
4 or more years...	16.0	32.7	25.3	9.6	16.4	100.0%	178,670
Persons 35-44 years old.....	60.6	23.4	8.9	2.1	4.9	100.0%	497,737
Elementary: 0 to 8 years.....	59.3	26.9	7.9	1.4	4.4	100.0%	22,030
High school: 1 to 3 years.....	59.7	27.6	8.4	1.4	2.8	100.0%	60,907
4 years.....	65.6	22.1	7.9	1.4	3.0	100.0%	248,355
College: 1 to 3 years.....	56.8	23.1	10.6	2.5	7.0	100.0%	75,004
4 or more years...	51.0	23.6	11.1	4.4	9.9	100.0%	91,441
Persons 45-64 years old.....	77.0	14.4	4.9	1.0	2.8	100.0%	894,269
Elementary: 0 to 8 years.....	78.1	15.5	4.4	0.6	1.4	100.0%	168,262
High school: 1 to 3 years.....	75.4	16.8	5.0	0.7	2.1	100.0%	135,976
4 years.....	78.3	13.7	4.7	0.9	2.5	100.0%	391,235
College: 1 to 3 years.....	74.4	14.0	5.5	1.4	4.8	100.0%	98,688
4 or more years...	74.7	12.6	5.8	1.9	5.1	100.0%	100,108
Persons 65 years old and over..	77.1	14.9	4.6	0.8	2.6	100.0%	581,350
Elementary: 0 to 8 years.....	77.0	16.3	4.7	0.6	1.3	100.0%	282,913
High school: 1 to 3 years.....	76.6	15.3	4.4	0.8	2.9	100.0%	84,627
4 years.....	78.0	13.3	4.3	0.9	3.6	100.0%	120,790
College: 1 to 3 years.....	76.9	13.6	4.5	0.8	4.2	100.0%	51,994
4 or more years...	76.3	10.7	5.1	1.5	6.4	100.0%	41,026

Table 2: Mobility Status Between 1975 and 1980 by Age and Years of School Completed: Wisconsin, 1980.

Age and Years of School Completed	Total Population	Same House	Different House						
			Total Migrant Population	Same State		Contiguous State		Noncontiguous State	
				Same county	Different county	In	Out	In	Out
Persons 25 years old and over..	2,887,092	1,641,692	1,245,400	646,306	249,677	82,413	57,730	81,187	128,087
Elementary: 0 to 8 years.....	17.3	22.4	10.5	12.9	9.6	8.8	5.7	6.1	6.2
High school: 1 to 3 years.....	12.1	13.5	10.4	12.2	9.2	9.8	6.3	7.3	7.5
4 years.....	39.8	41.2	37.9	43.0	36.6	32.2	26.5	29.6	29.2
College: 1 to 3 years.....	14.7	11.9	18.3	16.9	19.3	19.0	20.3	20.4	21.2
4 or more years...	16.1	11.0	22.9	15.0	25.3	30.2	41.2	36.7	36.0
Percent total.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Persons 25-34 years old.....	837,758	203,416	634,342	314,262	134,926	40,044	34,134	47,578	63,398
Elementary: 0 to 8 years.....	1.8	2.9	1.5	1.7	1.1	1.3	0.8	2.1	1.1
High school: 1 to 3 years.....	7.1	8.5	6.7	8.4	5.4	5.4	3.3	5.5	4.1
4 years.....	43.3	55.1	39.5	48.8	35.9	29.7	21.8	28.7	24.9
College: 1 to 3 years.....	22.2	19.4	23.1	22.5	24.0	23.4	23.6	22.8	23.6
4 or more years...	25.6	14.0	29.3	18.6	33.5	40.2	50.5	40.9	46.3
Percent total.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Persons 35-44 years old.....	530,797	301,715	229,082	116,475	48,420	16,768	10,608	16,292	24,519
Elementary: 0 to 8 years.....	4.4	4.3	4.4	5.1	3.9	3.5	3.0	3.9	4.0
High school: 1 to 3 years.....	12.0	12.1	11.9	14.4	11.5	9.4	8.3	6.9	7.0
4 years.....	48.9	54.0	42.2	47.1	43.9	38.0	32.6	30.3	30.7
College: 1 to 3 years.....	15.3	14.1	17.0	14.8	18.0	19.7	17.8	19.4	21.3
4 or more years...	19.4	15.5	24.5	18.5	22.8	29.3	38.3	39.5	37.0
Percent total.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Persons 45-64 years old.....	923,306	688,425	234,881	128,929	43,630	17,116	8,508	11,921	24,777
Elementary: 0 to 8 years.....	18.7	19.1	17.4	20.2	16.8	15.3	11.7	11.8	9.8
High school: 1 to 3 years.....	15.2	14.9	16.0	17.8	15.7	16.0	11.0	11.7	11.3
4 years.....	43.5	44.5	40.7	41.5	41.9	37.7	39.5	35.0	39.5
College: 1 to 3 years.....	11.1	10.7	12.6	10.7	12.4	13.3	15.7	16.0	19.0
4 or more years...	11.5	10.9	13.4	9.8	13.2	17.6	22.0	25.5	20.4
Percent total.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Persons 65 years old and over..	595,231	448,136	147,095	86,640	26,701	8,485	4,480	5,396	15,393
Elementary: 0 to 8 years.....	48.4	48.6	47.9	53.3	50.1	41.5	37.9	34.3	24.6
High school: 1 to 3 years.....	14.6	14.5	15.1	14.9	14.1	18.7	15.2	14.7	15.8
4 years.....	20.8	21.0	20.2	18.6	19.3	21.1	23.7	24.3	28.2
College: 1 to 3 years.....	9.0	8.9	9.1	8.2	8.7	8.7	9.7	11.6	14.3
4 or more years...	7.2	7.0	7.7	5.1	7.8	9.9	13.5	15.1	17.2
Percent total.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3: Interstate Migration by Years of School Completed by Age: Wisconsin 1975-1980.

Age and Years of School Completed	Number of Migrants			Migration Rate (%)		
	In	Out	Net	In	Out	Net
Persons 25 years old and over..	163,600	185,817	-22,217	6.0	-6.8	-0.8
Elementary: 0 to 8 years.....	12,184	11,225	959	2.5	-2.3	0.2
High school: 1 to 3 years.....	13,991	13,185	806	4.2	-3.9	0.2
4 years.....	50,588	52,710	-2,122	4.6	-4.8	-0.2
College: 1 to 3 years.....	32,217	38,828	-6,611	8.2	-9.9	-1.7
4 or more years...	54,620	69,869	-15,249	13.3	-17.0	-3.7
Persons 25-34 years old.....	87,622	97,532	-9,910	11.7	-13.0	-1.3
Elementary: 0 to 8 years.....	1,554	1,012	542	11.2	-7.3	3.9
High school: 1 to 3 years.....	4,754	3,733	1,021	8.7	-6.8	1.9
4 years.....	25,552	23,184	2,368	7.6	-6.9	0.7
College: 1 to 3 years.....	20,206	23,046	-2,840	12.2	-13.9	-1.7
4 or more years...	35,556	46,557	-11,001	19.9	-26.1	-6.2
Persons 35-44 years old.....	33,060	35,127	-2,067	6.6	-7.1	-0.4
Elementary: 0 to 8 years.....	1,226	1,296	-70	5.6	-5.9	-0.3
High school: 1 to 3 years.....	2,713	2,597	116	4.5	-4.3	0.2
4 years.....	11,317	10,987	330	4.6	-4.4	0.1
College: 1 to 3 years.....	6,457	7,116	-659	8.6	-9.5	-0.9
4 or more years...	11,347	13,131	-1,784	12.4	-14.4	-2.0
Persons 45-64 years old.....	29,037	33,285	-4,248	3.2	-3.7	-0.5
Elementary: 0 to 8 years.....	4,030	3,432	598	2.4	-2.0	0.4
High school: 1 to 3 years.....	4,142	3,744	398	3.0	-2.8	0.3
4 years.....	10,614	13,142	-2,528	2.7	-3.4	-0.6
College: 1 to 3 years.....	4,192	6,034	-1,842	4.2	-6.1	-1.9
4 or more years...	6,059	6,933	-874	6.1	-6.9	-0.9
Persons 65 years old and over..	13,881	19,873	-5,992	2.4	-3.4	-1.0
Elementary: 0 to 8 years.....	5,374	5,485	-111	1.9	-1.9	-0.0
High school: 1 to 3 years.....	2,382	3,111	-729	2.8	-3.7	-0.9
4 years.....	3,105	5,397	-2,292	2.6	-4.5	-1.9
College: 1 to 3 years.....	1,362	2,632	-1,270	2.6	-5.1	-2.4
4 or more years...	1,658	3,248	-1,590	4.0	-7.9	-3.9

Table 4: Interstate Migration of College Graduates and the Total Population, Aged 25 Years Old and Over: 1975-1980.

Division and State		College Graduates						Total Population		
		Numeric Migration			Migration Rate (%)			Migration Rate (%)		
		In	Out	Net	In	Out	Net	In	Out	Net
	U.S. Total	481,276	364,862	116,414	16.9	-16.9	-	.9	-8.9	
New England	Maine	19,329	17,071	2,258	21.1	-18.6	2.5	9.8	-8.7	1.1
	New Hampshire	28,854	21,460	7,394	32.2	-24.0	8.3	18.0	-12.6	5.3
	Vermont	14,538	14,304	234	26.5	-26.0	0.4	12.5	-11.9	0.6
	Massachusetts	97,563	136,030	-38,467	13.7	-19.0	-5.4	5.7	-9.2	-3.5
	Rhode Island	16,070	20,087	-4,017	17.7	-22.2	-4.4	6.9	-9.2	-2.3
	Connecticut	75,271	72,438	2,833	19.7	-19.0	0.7	8.6	-10.2	-1.6
Middle Atlantic	New York	169,197	333,726	-164,529	8.4	-16.6	-8.2	3.3	-9.5	-6.1
	New Jersey	125,771	136,413	-10,642	15.5	-16.8	-1.3	7.5	-9.6	-2.0
	Pennsylvania	115,070	169,715	-54,645	11.3	-16.6	-5.3	4.5	-6.5	-2.0
East North Central	Ohio	105,863	160,000	-54,137	11.7	-17.7	-6.0	5.0	-8.2	-3.2
	Indiana	58,495	80,565	-22,070	14.3	-19.8	-5.4	6.5	-8.3	-1.8
	Illinois	141,211	195,043	-53,832	12.8	-17.7	-4.9	5.3	-9.3	-4.0
	Michigan	79,308	118,999	-39,691	10.2	-15.3	-5.1	4.6	-7.4	-2.8
	Wisconsin	54,620	69,869	-15,249	13.3	-17.1	-3.7	6.0	-6.9	-0.8
West North Central	Minnesota	60,319	59,979	340	15.0	-14.9	0.1	6.7	-7.5	-0.8
	Iowa	40,384	52,022	-11,638	16.5	-21.3	-4.8	6.7	-8.8	-2.1
	Missouri	70,788	82,996	-12,208	17.2	-20.1	-3.0	8.3	-8.8	-0.4
	North Dakota	10,923	14,387	-3,464	19.3	-25.4	-6.1	9.9	-13.0	-3.1
	South Dakota	10,305	14,769	-4,464	17.6	-25.2	-7.6	9.2	-11.8	-2.7
	Nebraska	25,347	33,805	-8,458	17.2	-22.9	-5.7	8.9	-11.1	-2.2
	Kansas	44,668	52,745	-8,077	18.7	-22.0	-3.4	10.6	-11.9	-1.3

(Continued)

Table 4 (Continued): Interstate Migration of College Graduates and the Total Population, Aged 25 Years Old and Over: 1975-1980.

Division and State		College Graduates						Total Population		
		Numeric Migration			Migration Rate (%)			Migration Rate (%)		
		In	Out	Net	In	Out	Net	In	Out	Net
South Atlantic	Delaware	12,987	16,004	-3,017	21.0	-25.8	-4.9	11.7	-13.0	-1.4
	Maryland	99,037	99,866	-829	20.1	-20.2	-0.2	9.9	-11.4	-1.5
	Dist. of Columbia	33,885	43,803	-9,918	29.5	-38.2	-8.6	13.1	-25.4	-12.3
	Virginia	154,001	123,882	30,119	28.2	-22.7	5.5	12.6	-12.0	0.5
	West Virginia	18,244	22,460	-4,216	14.9	-18.4	-3.4	7.3	-7.3	0.1
	North Carolina	81,551	78,071	3,480	18.6	-17.8	0.8	8.3	-7.5	0.8
	South Carolina	46,605	39,520	7,085	21.0	-17.8	3.2	10.2	-8.5	1.7
	Georgia	97,753	76,987	20,766	23.2	-18.3	4.9	10.7	-8.3	2.3
	Florida	227,686	126,998	100,688	28.4	-15.8	12.6	22.5	-10.4	12.0
East South Central	Kentucky	37,393	41,648	-4,255	16.0	-17.9	-1.8	7.6	-7.4	0.2
	Tennesee	65,575	58,464	7,111	20.0	-17.9	2.2	9.6	-7.4	2.1
	Alabama	42,779	44,291	-1,512	16.0	-16.6	-0.6	8.0	-6.6	1.3
	Mississippi	24,333	27,819	-3,486	14.3	-16.4	-2.1	8.5	-8.2	0.3
West South Central	Arkansas	27,836	24,447	3,389	20.0	-17.5	2.4	12.0	-8.5	3.5
	Louisiana	49,784	46,406	3,378	16.2	-15.1	1.1	8.0	-6.8	1.2
	Oklahoma	46,681	42,534	4,147	18.1	-16.5	1.6	12.1	-8.8	3.3
	Texas	234,023	137,307	96,716	19.4	-11.4	8.0	10.6	-6.4	4.1
Mountain	Montana	17,661	15,773	1,888	23.2	-20.7	2.5	13.8	-13.1	0.7
	Idaho	23,241	15,845	7,396	32.1	-21.9	10.2	19.3	-13.8	5.5
	Wyoming	14,938	10,440	4,498	38.6	-26.9	11.6	26.9	-17.6	9.3
	Colorado	103,324	78,845	24,479	29.5	-22.5	7.0	19.7	-15.7	4.0
	New Mexico	33,288	26,084	7,204	29.1	-22.8	6.3	17.9	-14.4	3.5
	Arizona	82,645	50,907	31,738	35.5	-21.9	13.6	27.0	-15.0	12.0
	Utah	27,010	29,532	-2,522	19.4	-21.2	-1.8	14.2	-11.6	2.5
	Nevada	25,816	11,751	14,065	48.8	-22.2	26.6	37.5	-18.3	19.1
Pacific	Washington	98,584	56,510	42,074	24.2	-13.9	10.3	16.0	-8.7	7.3
	Oregon	64,146	40,039	24,107	25.4	-15.9	9.6	17.0	-9.8	7.2
	California	343,771	258,790	84,981	13.5	-10.2	3.3	8.2	-7.9	0.3
	Alaska	16,607	12,958	3,649	41.8	-32.7	9.2	23.8	-29.6	-5.8
	Hawaii	24,390	25,064	-674	23.0	-23.7	-0.6	14.1	-18.4	-4.3

Table 5: Interstate Migration of College Graduates and the Total Population, Aged 25 Years Old and Over: 1965-1970.

Division and State		College Graduates						Total Population		
		Numeric Migration			Migration Rate (%)			Migration Rate (%)		
		In	Out	Net	In	Out	Net	In	Out	Net
	U.S. Total	2,081,200	2,081,200	-	18.9	-18.9	-	8.3	-8.3	-
New England	Maine	6,600	10,800	-4,200	14.4	-23.6	-9.2	6.1	-9.1	-3.0
	New Hampshire	11,800	8,500	3,300	32.0	-23.0	8.9	14.1	-10.7	3.4
	Vermont	10,000	7,200	2,800	43.3	-31.2	12.1	13.1	-8.9	4.3
	Massachusetts	65,900	71,100	-5,200	18.0	-19.4	-1.4	6.0	-7.3	-1.3
	Rhode Island	11,000	14,300	-3,300	21.9	-28.4	-6.6	8.5	-10.5	-2.0
	Connecticut	54,300	39,600	14,700	26.3	-19.2	7.1	9.2	-8.0	1.2
Middle Atlantic	New York	139,300	187,100	-47,800	11.6	-15.5	-4.0	3.7	-6.9	-3.2
	New Jersey	94,700	74,700	20,000	21.4	-16.9	4.5	9.0	-7.5	1.5
	Pennsylvania	79,800	100,400	-20,600	13.8	-17.4	-3.6	4.2	-5.3	-1.0
East North Central	Ohio	84,000	98,300	-14,300	16.0	-18.7	-2.7	6.0	-6.5	-0.5
	Indiana	42,000	57,100	-15,100	17.8	-24.2	-6.4	7.1	-7.7	-0.6
	Illinois	102,600	116,200	-13,600	16.9	-19.1	-2.2	6.0	-8.1	-2.1
	Michigan	61,500	68,700	-7,200	14.6	-16.4	-1.7	5.8	-6.2	-0.4
	Wisconsin	37,500	42,300	-4,800	16.8	-18.9	-2.1	6.2	-6.0	0.1
West North Central	Minnesota	36,700	37,200	-500	18.0	-18.2	-0.2	6.7	-6.9	-0.2
	Iowa	26,800	37,700	-10,900	18.2	-25.6	-7.4	6.0	-8.1	-2.1
	Missouri	45,500	51,000	-5,500	20.7	-23.2	-2.5	8.1	-8.2	-0.1
	North Dakota	6,300	12,100	-5,800	18.9	-36.2	-17.4	8.5	-14.5	-6.0
	South Dakota	6,300	9,500	-3,200	20.5	-30.9	-10.4	7.8	-12.8	-5.0
	Nebraska	14,000	23,000	-9,000	15.9	-26.1	-10.2	7.8	-10.7	-2.9
	Kansas	27,200	35,600	-8,400	19.8	-25.9	-6.1	9.9	-11.8	-2.0

(Continued)

Table 5 (Continued): Interstate Migration of College Graduates and the Total Population, Aged 25 Years Old and Over: 1965-1970.

Division and State		College Graduates						Total Population		
		Numeric Migration			Migration Rate (%)			Migration Rate (%)		
		In	Out	Net	In	Out	Net	In	Out	Net
South Atlantic	Delaware	9,800	8,000	1,800	33.8	-27.6	6.2	13.9	-11.3	2.6
	Maryland	79,200	52,900	26,300	32.7	-21.8	10.9	12.7	-9.4	3.3
	Dist. of Columbia	20,200	28,600	-8,400	26.7	-37.8	-11.1	10.5	-25.1	-14.6
	Virginia	81,500	64,900	16,600	31.9	-25.4	6.5	11.[illegible]	-11.6	0.0
	West Virginia	8,500	17,300	-8,800	12.3	-25.1	-12.8	5.9	-9.3	-3.5
	North Carolina	39,900	41,300	-1,400	18.5	-19.2	-0.7	7.1	-7.2	-0.2
	South Carolina	21,000	21,300	-300	19.4	-19.6	-0.3	8.5	-8.8	-0.4
	Georgia	51,100	36,800	14,300	26.5	-19.1	7.4	10.1	-8.5	1.6
	Florida	108,500	57,400	51,100	33.0	-17.4	15.5	23.4	-10.4	13.0
East South Central	Kentucky	21,400	28,000	-6,600	16.9	-22.1	-5.2	6.6	-7.8	-1.2
	Tennessee	31,200	36,000	-4,800	18.8	-21.7	-2.9	7.7	-7.8	-0.1
	Alabama	25,800	31,000	-5,200	17.7	-21.3	-3.6	6.9	-8.2	-1.3
	Mississippi	10,100	19,100	-9,000	11.1	-21.0	-9.9	7.8	-9.1	-1.3
West South Central	Arkansas	10,900	14,500	-3,600	15.5	-20.7	-5.1	8.9	-8.6	0.4
	Louisiana	21,900	29,600	-7,700	13.5	-18.3	-4.8	6.8	-7.2	-0.3
	Oklahoma	22,900	35,900	-13,000	15.6	-24.5	-8.9	10.3	-10.4	-0.1
	Texas	95,800	86,900	8,900	16.0	-14.5	1.5	7.7	-7.3	0.5
Mountain	Montana	6,700	13,000	-6,300	16.1	-31.2	-15.1	8.8	-14.6	-5.8
	Idaho	8,200	10,200	-2,000	21.4	-26.6	-5.2	13.6	-14.2	-0.6
	Wyoming	6,600	6,900	-300	30.6	-31.9	-1.4	16.4	-20.6	-4.2
	Colorado	49,400	36,700	12,700	32.8	-24.4	8.4	17.5	-14.3	3.2
	New Mexico	18,800	20,400	-1,600	29.6	-32.1	-2.5	15.6	-20.2	-4.6
	Arizona	38,800	24,600	14,200	42.2	-26.8	15.5	26.5	-16.8	9.8
	Utah	10,900	24,000	-13,100	14.2	-31.2	-17.0	10.2	-14.1	-3.9
	Nevada	8,600	6,300	2,300	37.1	-27.2	9.9	28.4	-23.1	5.3
Pacific	Washington	47,200	35,000	12,200	22.6	-16.7	5.8	14.4	-8.9	5.5
	Oregon	27,200	23,600	3,600	22.3	-19.3	2.9	13.3	-9.9	3.4
	California	207,500	150,600	56,900	16.1	-11.7	4.4	9.0	-7.9	1.1
	Alaska	9,500	5,600	3,900	75.4	-44.4	31.0	38.5	-38.9	-0.3
	Hawaii	18,300	12,400	5,900	44.3	-30.0	14.3	17.6	-20.6	-2.9

Table 6: The Impact of Selective Interstate Migration on the Resident Population's Years of School Completed: Rates and Selection Indices for Wisconsin versus U.S. regions, 1975-1980.

Region and Years of School Completed		Migration Rate (%)			Selection Index (%)			Net Migration		
		In	Out	Net	In	Out	Net	Actual	With No Selection	Ratio
Wisconsin										
Persons 25 years old and over.....		6.0	-6.9	-0.8				-22,217		
Elementary:	0-8 years.....	2.5	-2.3	0.2	-58	66	124	959	-3,958	4.1
High school:	1-3 years.....	4.2	-3.9	0.2	-31	82	129	806	-2,741	3.4
	4 years.....	4.6	-4.8	-0.2	-23	30	76	-2,122	-8,946	4.2
College:	1 to 3 years.....	8.2	-9.9	-1.7	36	-45	-106	-6,611	-3,209	-2.1
	4 or more years...	13.3	-17.0	-3.7	121	-148	-354	-15,289	-3,362	-4.5
Northeast Region										
Persons 25 years old and over.....		5.4	-8.8	-3.5				-1,055,572		
Elementary:	0-8 years.....	2.1	-4.2	-2.1	-61	52	80	-109,687	-181,854	1.7
High school:	1-3 years.....	2.7	-5.3	-2.7	-50	40	23	-124,109	-161,204	1.3
	4 years.....	3.8	-7.1	-3.3	-29	20	6	-361,413	-384,988	1.1
College:	1 to 3 years.....	7.5	-12.3	-4.8	40	-39	-39	-200,782	-144,769	-1.4
	4 or more years...	12.5	-17.5	-4.9	133	-98	-42	-259,581	-182,758	-1.4
Midwest Region										
Persons 25 years old and over.....		6.1	-8.5	-2.4				-835,189		
Elementary:	0-8 years.....	2.7	-4.1	-1.4	-56	52	82	-81,740	-141,341	1.7
High school:	1-3 years.....	3.7	-5.5	-1.8	-40	35	23	-95,449	-124,527	1.3
	4 years.....	4.8	-6.8	-2.0	-22	21	18	-264,321	-321,919	1.2
College:	1 to 3 years.....	8.5	-11.7	-3.2	39	-37	-31	-160,731	-122,988	-1.3
	4 or more years...	13.6	-18.1	-4.5	122	-112	-87	-232,948	-124,414	-1.9
South Region										
Persons 25 years old and over.....		11.5	-8.6	2.9				1,229,110		
Elementary:	0-8 years.....	4.8	-3.1	1.7	-59	64	-93	159,909	281,864	-0.6
High school:	1-3 years.....	7.6	-5.2	2.4	-34	80	-18	176,384	218,440	-0.8
	4 years.....	12.1	-8.7	3.4	5	-1	15	435,386	377,777	1.2
College:	1 to 3 years.....	16.1	-12.7	3.5	40	-47	19	207,825	174,972	1.2
	4 or more years...	21.2	-17.1	4.1	84	-99	39	249,646	180,057	1.4
West Region										
Persons 25 years old and over.....		13.0	-10.2	2.8				661,651		
Elementary:	0-8 years.....	6.2	-5.1	1.0	-53	50	-63	31,518	86,343	-0.4
High school:	1-3 years.....	9.4	-7.9	1.4	-28	23	-48	43,174	83,092	-0.5
	4 years.....	12.2	-9.9	2.4	-6	4	-15	190,388	225,102	-0.8
College:	1 to 3 years.....	14.7	-11.7	3.0	13	-15	7	153,688	143,791	1.1
	4 or more years...	19.8	-14.3	5.5	52	-40	97	242,883	123,323	2.0

Table 7: Interstate Migration of College Graduates and the Total Population, Aged 25 Years Old and Over: Wisconsin Counties, 1975-1980.

	College Graduates						Total Population		
	Numeric Migration			Migration Rate (100%)			Migration Rate (100%)		
County	In	Out	Net	In	Out	Net	In	Out	Net
Wisconsin	54,620	69,869	-15,249	13.3	-17.0	-3.7	6.0	-6.8	-0.8
Adams	111	58	53	22.2	-11.6	10.6	18.9	-6.4	12.5
Ashland	153	372	-219	9.9	-24.1	-14.2	4.4	-8.4	-4.1
Barron	252	295	-43	11.6	-13.5	-2.0	7.5	-5.6	1.9
Bayfield	200	58	142	19.2	-5.6	13.7	8.9	-5.9	3.0
Brown	1,807	1,808	-1	13.9	-13.9	0.0	5.8	-5.8	-0.1
Buffalo	77	80	-3	9.7	-10.1	-0.4	6.0	-4.6	1.4
Burnett	91	37	54	14.9	-6.1	8.9	17.2	-6.2	11.0
Calumet	147	181	-34	11.6	-14.2	-2.7	3.0	-4.2	-1.1
Chippewa	433	333	100	16.4	-12.6	3.8	5.3	-4.3	1.0
Clark	171	203	-32	11.1	-13.2	-2.1	5.6	-3.8	1.9
Columbia	463	267	196	18.0	-10.4	7.6	6.2	-4.2	1.9
Crawford	192	78	114	28.5	-11.6	16.9	8.0	-5.0	3.0
Dane	9,801	17,418	-7,617	15.2	-27.0	-11.8	8.8	-13.9	-5.1
Dodge	507	416	91	13.8	-11.3	2.5	4.4	-3.1	1.3
Door	273	271	2	15.3	-15.1	0.1	8.5	-6.0	2.5
Douglas	287	966	-679	7.6	-25.6	-18.0	7.6	-10.2	-2.6
Dunn	384	933	-549	9.8	-23.8	-14.0	7.3	-8.6	-1.3
Eau Claire	1,217	1,838	-621	13.1	-19.7	-6.7	8.0	-8.7	-0.7
Florence	33	53	-20	17.9	-28.8	-10.9	12.4	-10.5	1.9
Fond du Lac	537	826	-289	9.2	-14.2	-5.0	3.1	-4.7	-1.6
Forest	66	61	5	13.9	-12.8	1.1	5.7	-4.2	1.4
Grant	538	876	-338	11.3	-18.4	-7.1	6.5	-7.0	-0.4
Green	187	173	14	11.5	-10.6	0.9	6.3	-5.2	1.1
Green Lake	99	195	-96	8.6	-16.9	-8.3	5.3	-4.3	1.0
Iowa	170	90	80	14.6	-7.7	6.9	4.7	-3.7	1.0
Iron	75	46	29	26.2	-16.1	10.1	9.0	-7.3	1.7
Jackson	138	11	127	20.8	-1.7	19.1	7.3	-3.9	3.4
Jefferson	578	718	-140	11.8	-14.6	-2.9	4.6	-5.5	-0.9
Juneau	93	88	5	8.7	-8.3	0.5	7.3	-3.5	3.8
Kenosha	1,109	1,454	-345	14.1	-18.4	-4.4	8.6	-8.8	-0.2
Kewaunee	79	38	41	9.7	-4.7	5.0	2.9	-1.1	1.8
La Crosse	1,423	1,842	-419	15.1	-19.6	-4.5	6.7	-8.0	-1.3
Lafayette	75	97	-22	7.9	-10.2	-2.3	3.8	-3.8	0.0
Langlade	109	73	36	11.8	-7.9	3.9	4.1	-3.3	0.8
Lincoln	98	169	-71	6.4	-11.0	-4.6	4.9	-5.5	-0.7
Manitowoc	629	415	214	14.5	-9.6	4.9	3.5	-3.8	-0.3

(Continued)

Table 7 (Continued): Interstate Migration of College Graduates and the Total Population, Aged 25 Years Old and Over: Wisconsin Counties, 1975-1980.

	College Graduates						Total Population		
	Numeric Migration			Migration Rate (100%)			Migration Rate (100%)		
County	In	Out	Net	In	Out	Net	In	Out	Net
Marathon	956	785	171	15.4	-12.7	2.8	5.1	-4.5	0.6
Marinette	247	316	-69	12.9	-16.5	-3.6	7.6	-5.9	1.7
Marquette	58	32	26	9.3	-5.1	4.2	7.2	-7.1	0.1
Menominee	79	17	62	138.6	-29.8	108.8	15.9	-5.7	10.2
Milwaukee	10,891	15,630	-4,739	11.2	-16.1	-4.9	4.6	-7.2	-2.6
Monroe	248	353	-105	14.5	-20.6	-6.1	5.7	-6.6	-0.9
Oconto	80	99	-19	6.9	-8.5	-1.6	3.8	-2.9	1.0
Oneida	334	180	154	16.5	-8.9	7.6	9.2	-5.1	4.0
Outagamie	1,278	1,463	-185	14.4	-16.5	-2.1	5.3	-5.0	0.3
Ozaukee	1,251	1,264	-13	15.3	-15.5	-0.2	7.3	-8.2	-0.9
Pepin	53	16	37	17.4	-5.3	12.2	5.7	-4.4	1.2
Pierce	412	587	-175	13.8	-19.7	-5.9	9.6	-8.9	0.7
Polk	343	156	187	19.3	-8.8	10.5	11.7	-7.1	4.7
Portage	794	1,151	-357	14.0	-20.3	-6.3	6.6	-7.7	-1.1
Price	99	108	-9	12.7	-13.8	-1.2	6.4	-5.4	0.9
Racine	1,463	1,803	-340	10.7	-13.2	-2.5	5.0	-6.6	-1.7
Richland	109	47	62	14.8	-6.4	8.4	5.9	-3.8	2.1
Rock	1,402	1,735	-333	13.4	-16.6	-3.2	5.8	-7.7	-1.9
Rusk	89	134	-45	11.3	-17.0	-5.7	8.2	-6.3	1.9
St. Croix	825	560	265	24.6	-16.7	7.9	13.3	-9.2	4.1
Sauk	491	522	-31	16.4	-17.4	-1.0	6.9	-5.1	1.8
Sawyer	176	74	102	24.8	-10.4	14.4	14.7	-9.6	5.1
Shawano	191	232	-41	11.2	-13.6	-2.4	3.3	-2.9	0.4
Sheboygan	809	764	45	14.0	-13.2	0.8	3.8	-3.9	-0.1
Taylor	41	78	-37	5.8	-11.0	-5.2	4.3	-4.5	-0.3
Trempealeau	173	123	50	12.4	-8.8	3.6	5.1	-4.0	1.1
Vernon	219	52	167	14.9	-3.5	11.4	5.7	-2.4	3.2
Vilas	283	171	112	28.4	-17.2	11.3	13.7	-7.4	6.3
Walworth	996	1,049	-53	15.5	-16.4	-0.8	10.1	-9.0	1.1
Washburn	98	81	17	13.7	-11.3	2.4	10.0	-6.5	3.5
Washington	592	585	7	10.3	-10.2	0.1	3.6	-4.7	-1.1
Waukesha	4,020	4,108	-88	13.1	-13.4	-0.3	6.5	-7.8	-1.3
Waupaca	255	181	74	13.4	-9.5	3.9	3.8	-3.4	0.5
Waushara	79	78	1	9.2	-9.0	0.1	6.5	-4.1	2.4
Winnebago	1,845	2,104	-259	14.1	-16.1	-2.0	5.4	-6.0	-0.6
Wood	739	394	345	16.9	-9.0	7.9	5.6	-3.8	1.8

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